

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

REMARKS

Upon entry of this Amendment, claims 1-20 are all the claims pending in the application. New claims 19 and 20 are added. No new matter is added.

I. Claim Rejections under 35 U.S.C. § 103(a)

Claims 1, 2, 4, 5, 7, 8 and 10-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Liukkonen et al. (U.S. Patent No. 6,230,214) in view of Smith (U.S. Patent No. 6,014,030). Applicant respectfully traverses this rejection on the following basis.

Claim 1 defines a novel combination which forms a communication method for a portable radio terminal. Included among the features of this new method is a step of judging whether a radio communication function section is in radio communication. Further included among the features is a step of controlling a driving current of a light emitting element in an infrared communication function section. Applicant submits that the claimed combination, including at least these features, is neither taught nor suggested by the cited prior art.

Liukkonen discloses a mobile telephone 1 having an infra-red communications port 3. The Examiner correctly recognizes that Liukkonen does not teach or suggest the features of judging whether a radio communication function section is in radio communication and controlling a driving current of a light emitting element in an infrared communication function section. To cure the deficiencies of Liukkonen, the Examiner applies Smith.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

Smith discloses circuitry for monitoring current being discharged from a battery to determine whether the current level exceeds a predefined threshold. If the current being discharged from the battery exceeds the predefined threshold, the circuitry disconnects the battery from the system (see column 3, lines 36-38; column 4, lines 61-65; and column 5, lines 33-37). Thus, if the current exceeds the predefined threshold, Smith discloses cutting the battery out of the circuit, thereby protecting the battery from potential permanent damage. The battery is cut out of the circuit by shutting off power to transistors M103 and M104 (see column 9, lines 27-38).

The Examiner asserts that Smith teaches a protective circuit which limits the amount of current drawn from a battery to thereby prevent permanent damage to the battery. Applicant respectfully disagrees. As discussed above, Smith does not teach limiting the amount of current drawn from a battery. Rather, Smith teaches cutting off all current drawn from a battery should the current exceed a threshold, thereby cutting the battery out of the circuit. Thus, Applicant respectfully submits that the Examiner's characterization of Smith as limiting the amount of current drawn from a battery is in error.

The Examiner further states that it would have been obvious to one of ordinary skill in the art to provide the device as disclosed by Liukkonen with "Smith's method of controlling the current that is drawn away from the battery in the phone, and by doing this the driving current of the IR function would be limited by the battery circuit described by Smith." For the reasons discussed above, Applicant again respectfully disagrees.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

Contrary to the assertion of the Examiner, Smith's method would not control the amount of driving current of a light emitting element, as is required by claim 1. Rather, Smith's method would simply cut off all current to the IR function, and for that matter, every function provided in the Liukkonen device. Thus, Applicant respectfully submits that the combination of Liukkonen and Smith fails to teach the claimed feature of "controlling a driving current of a light emitting element" as required by claim 1.

Furthermore, the Examiner has not addressed the feature of judging whether a radio communication function section is in radio communication or not. As discussed above, Smith teaches the ability to disconnect a battery if the current discharging from the battery exceeds a predefined threshold. Such an operation, however, clearly cannot be interpreted as judging whether a radio communication function is in radio communication or not, as is required by claim 1.

In Liukkonen, a radio communication function is not the only operable function which will draw current from the battery. Indeed, the use of other functions on the mobile telephone will draw current from the battery as well. While Smith teaches the ability to determine the amount of current being drawn from a battery, Smith clearly does not teach the ability to determine whether a radio communication function section is in radio communication or not. Indeed, Smith does not even remotely suggest the ability to provide such a feature.

Therefore, as the combination of Liukkonen and Smith fails to teach or suggest all of the features of claim 1, Applicant submits that a prima facie case of obviousness has not been established and respectfully requests that the Examiner reconsider and withdraw the rejection. If

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

the Examiner persists in this rejection, Applicant respectfully requests that the Examiner particularly point out the passages and structure in the cited prior art which correspond to the above discussed features.

Claims 2 and 10-12 depend from claim 1 and therefore incorporate all of the limitations thereof. Accordingly, Applicant submits that claims 1 and 10-12 are patentable at least by virtue of their dependency.

In addition, claim 2 recites the feature of the driving current being controlled in accordance with a transmission power value of the radio communication function section. Applicant submits that Smith fails to teach such a feature. As discussed above, Smith does not disclose controlling a driving current and, therefore, Smith clearly does not disclose controlling a driving power in accordance with a transmission power value of a radio communication function section, as is required by claim 2.

In support of the rejection of claim 2, the Examiner cites to column 4, line 51 - column 5, line 10 of Descombes (U.S. Patent No. 6,377,429). However, as was asserted by Applicant in the Amendment filed January 23, 2003, the Descombes reference does not qualify as prior art against the instant application. Accordingly, Applicant respectfully requests that the rejection of claim 2 be reconsidered and withdrawn.

Independent claim 4 defines a novel combination which forms a communication method for a portable radio terminal. For at least the same reasons as discussed above with respect to claim 1, Applicant submits that the cited prior art fails to teach or suggest the feature of judging whether a radio communication function section is in radio communication or not.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

In addition, claim 4 recites the feature of selecting an infrared communication function section among a plurality of infrared communication function sections. The Examiner, however, has not addressed this feature of claim 4. Applicant submits that Liukkonen does not disclose or even remotely suggest a plurality of infrared communication function sections. Applicant submits that Smith fails to cure this deficiency of Liukkonen.

As discussed above, Smith merely teaches the ability to disconnect a battery if a current exceeds a predefined threshold. Smith, however, does not even remotely suggest the ability to select an infrared communication function section among a plurality of infrared communication function sections, as is required by claim 4.

Accordingly, as the combination of Liukkonen and Smith fails to teach or suggest all of the features of claim 4, Applicant submits that a prima facie case of obviousness has not been established and respectfully requests that the Examiner reconsider and withdraw the rejection. If the Examiner persists in this rejection, Applicant respectfully requests that the Examiner particularly point out the passages and structure in the cited prior art which correspond to the above mentioned features.

Claims 5 and 13-15 depend from claim 4 and therefore incorporate all of the limitations thereof. Accordingly, Applicant submits that claims 5 and 13-15 are patentable at least by virtue of their dependency.

Independent claim 7 defines a novel combination of elements which forms a portable radio terminal. For at least the same reasons as discussed above with respect to claim 1, Applicant submits that the cited prior art fails to teach or suggest all of the features of claim 7.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

Namely, the combination of Liukkonen and Smith fails to teach or suggest an information processing section operable to detect a function state of a radio communication function section and also operable to control an infrared output from an infrared communication function section.

Accordingly, as the combination of Liukkonen and Smith fails to teach or suggest all of the features of claim 7, Applicant submits that a prima facie case of obviousness has not been established and respectfully requests that the Examiner reconsider and withdraw the rejection. If the Examiner persists in this rejection, Applicant respectfully requests that the Examiner particularly point out the passages and structure in the cited prior art which correspond to the above mentioned features.

Claims 8 depends from claim 7 and therefore incorporate all of the limitations thereof. Accordingly, Applicant submits that claim 8 is patentable at least by virtue of their dependency.

In addition, claim 8 recites the feature of a function state which indicates whether there is radio output from the radio communication function section. The Examiner, however, has failed address this feature of the claim.

In rejecting claim 8, the Examiner asserts that the cited prior art teaches that the driving current of the light emitting diode can be controlled in accordance with the power allocated to in accordance with a reduced transmission power value. This statement, however, fails to address the features of claim 8 which are drawn to a function state which indicates whether there is radio output from the radio communication function section. Accordingly, Applicant requests that the rejection of claim 8 be withdrawn.

II. Allowable Subject Matter

Applicant would also like to thank the Examiner for indicating that claims 3, 6, 9 and 16-18 would be allowable if rewritten in independent form. Applicant submits that claims 3, 6, 9 and 16-18 are patentable at least by virtue of their dependency from their respective base claims, which Applicant believes are allowable based on the reasons discussed above. Therefore, Applicant has not rewritten the claims in independent form at this time.

III. New Claims

New claims 19 and 20 have been added. Applicant respectfully submits that new claims 19 and 20 patentably distinguish over the cited art based on the combination of features recited therein.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Date: May 20, 2003

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO.: 09/643,765

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 19 and 20 are added as new claims.